

Refine Search

Search Results -

Terms	Documents
(bus near3 arbitration) and (grant\$3 same concurrent same latenc\$3)	4

Database:

US Pre-Grant Publication Full-Text Database

US Patents Full-Text Database

US OCR Full-Text Database

EPO Abstracts Database

JPO Abstracts Database

Derwent World Patents Index

IBM Technical Disclosure Bulletins

Search:

L1

Refine Search

Recall Text

Clear

Interrupt

Search History

DATE: Friday, November 04, 2005 [Printable Copy](#) [Create Case](#)

<u>Set Name</u> <u>Query</u>	<u>Hit Count</u> <u>Set Name</u>
side by side	result set
DB=PGPB,USPT,USOC; PLUR=YES; OP=OR	
<u>L1</u> (bus near3 arbitration) and (grant\$3 same concurrent same latenc\$3)	4 <u>L1</u>

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
(bus near3 arbitration) and (grant\$3 same concurrent same latenc\$3)	0

Database:

US Pre-Grant Publication Full-Text Database
 US Patents Full-Text Database
 US OCR Full-Text Database
 EPO Abstracts Database
 JPO Abstracts Database
 Derwent World Patents Index
 IBM Technical Disclosure Bulletins

Search:

L2

Refine Search

Recall Text

Clear

Interrupt

Search History

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Set Name Query

side by side

DB=EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR

L2 (bus near3 arbitration) and (grant\$3 same concurrent same latenc\$3)

DB=PGPB,USPT,USOC; PLUR=YES; OP=OR

L1 (bus near3 arbitration) and (grant\$3 same concurrent same latenc\$3)

Hit Count Set Name

result set

0 L24 L1

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
arbitration and (grant\$3 same concurrent same latenc\$3)	10

Database:

US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
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Search:

L3

Refine Search

Recall Text

Clear

Interrupt

Search History

DATE: Friday, November 04, 2005 [Printable Copy](#) [Create Case](#)

Set Name Query

side by side

Hit Count Set Name

result set

*DB=PGPB,USPT,USOC; PLUR=YES; OP=OR*L3 arbitration and (grant\$3 same concurrent same latenc\$3)10 L3*DB=EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR*L2 (bus near3 arbitration) and (grant\$3 same concurrent same latenc\$3)0 L2*DB=PGPB,USPT,USOC; PLUR=YES; OP=OR*L1 (bus near3 arbitration) and (grant\$3 same concurrent same latenc\$3)4 L1

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
arbitration and (grant\$3 same concurrent same latenc\$3)	0

Database:

US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
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Search:

L4

Refine Search

Recall Text

Clear

Interrupt

Search History

DATE: Friday, November 04, 2005 [Printable Copy](#) [Create Case](#)

Set Name Query

side by side

Hit Count Set Name

result set

*DB=EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR*L4 arbitration and (grant\$3 same concurrent same latenc\$3)0 L4*DB=PGPB,USPT,USOC; PLUR=YES; OP=OR*L3 arbitration and (grant\$3 same concurrent same latenc\$3)10 L3*DB=EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR*L2 (bus near3 arbitration) and (grant\$3 same concurrent same latenc\$3)0 L2*DB=PGPB,USPT,USOC; PLUR=YES; OP=OR*L1 (bus near3 arbitration) and (grant\$3 same concurrent same latenc\$3)4 L1

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
(grant\$3 same concurrent same latenc\$3)	11

Database:

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Search:

L5

Refine Search

Recall Text

Clear

Interrupt

Search History

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<u>Set Name</u> <u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side		result set
DB=PGPB,USPT,USOC; PLUR=YES; OP=OR		
L5 (grant\$3 same concurrent same latenc\$3)	11	L5
DB=EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR		
L4 arbitration and (grant\$3 same concurrent same latenc\$3)	0	L4
DB=PGPB,USPT,USOC; PLUR=YES; OP=OR		
L3 arbitration and (grant\$3 same concurrent same latenc\$3)	10	L3
DB=EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR		
L2 (bus near3 arbitration) and (grant\$3 same concurrent same latenc\$3)	0	L2
DB=PGPB,USPT,USOC; PLUR=YES; OP=OR		
L1 (bus near3 arbitration) and (grant\$3 same concurrent same latenc\$3)	4	L1

END OF SEARCH HISTORY



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» Key

IEEE JNL	IEEE Journal or Magazine
IEE JNL	IEE Journal or Magazine
IEEE CNF	IEEE Conference Proceeding
IEE CNF	IEE Conference Proceeding
IEEE STD	IEEE Standard

-
- 1. SAMBA-bus: A high performance bus architecture for system-on-chips**
Ruibing Lu; Cheng-Koh Koh;
Computer Aided Design, 2003. ICCAD-2003. International Conference on
9-13 Nov. 2003 Page(s):8 - 12
Digital Object Identifier 10.1109/ICCAD.2003.1257568
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SAMBA-bus: A high performance bus architecture for system-on-chips

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Abstract

A high performance communication architecture, SAMBA-bus, is proposed in this paper. In SAMBA-bus, multiple compatible bus transactions can be performed simultaneously with only a single bus access grant from the bus arbiter. Experimental results show that, compared with a traditional bus architecture, the SAMBA-bus architecture can have up to 3.5 times improvement in the effective bandwidth, and up to 15 times reduction in the average communication latency. In addition, the performance of SAMBA-bus architecture is affected only slightly by arbitration latency, because bus transactions can be performed without waiting for the bus access grant from the arbiter. This feature is desirable in SoC designs with large numbers of modules and long communication delay between modules and the bus arbiter.

Index Terms
Inspe

Controlled Indexing

asynchronous circuits circuit CAD system buses system-on-chip

Non-controlled Indexing

SAMBA bus architecture SOC design arbitration latency bus arbiter high performance bus architecture high performance communication architecture long communication delay multiple compatible bus transactions system-on-chip traditional bus architecture

Author Keywords

Not Available

References

No references available on IEEE Xplore.

Citing Documents

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